
Calculate Case Fatality Rates and Attack Rates



Case Fatality Rate

Proportion of cases that resulted in death

- **Can be as high as 33%-50% where medical treatment not available**
- **In developing countries, CFR can be less than 1%, when treatment is optimal**
- **If the CFR is $> 10\%$**
 - **are there problems with case management?**
 - **review treatment routines**
 - **ensure adequate supplies**
 - **increase community's access to care (consider Temporary Treatment Centers)**

Calculate Case Fatality Rate

Proportion of cases that resulted in death

$$\text{■ } \frac{\text{Number of Deaths}}{\text{Number of Cases}} \times 100$$

Example:

100 cases in one week, 10 patients died

$$\frac{10}{100} = 0.1$$

$$0.1 \times 100 = 10$$

CFR is 10%

Attack Rate

- **Calculated by dividing the number of cases by the population at risk**
- **Expressed as a percentage**
- **Severely affected countries have reported national attack rates of > 1% of population**
- **ARs as high as 20% have been recorded in severe epidemics**

Calculate Attack Rate

$$\text{Attack rate} = \frac{\text{number of cases}}{\text{population at risk}} \times 100$$

Example:

Village of 3,000 persons
15 cases of cholera

$$\text{Attack rate} = \frac{15}{3,000} \times 100 =$$

$$0.005 \times 100 = .5\%$$